## **ABSTRACT**

Provided are an electric double-layer capacitor which can have a reduced internal resistance and an improved withstand voltage with a simple structure, and a method for manufacturing the capacitor. The electric double-layer capacitor uses an alloy of carbon and aluminum as a material of the electrode. The electrode is formed by applying carbon to an aluminum foil and heating the aluminum foil with carbon thereon to a temperature at which the aluminum foil and the carbon are alloyed.